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What do people learn from following the news?

A diary study on the influence of media use on knowledge of current news stories

One of the main functions of news media in democracies is informing the citizenry on day-to-day affairs. However, the way in which citizens gather news has changed as nowadays people have more opportunities than ever before to adapt their media consumption based on their preferences. One of the major game changers was the introduction of social media. This raises the question to what extent traditional media still contribute to people's knowledge of current affairs. Using a time-diary study in the Flemish media context, we investigate the influence of different forms of news consumption on current news knowledge. We conclude that traditional (print and audiovisual) media, including popular outlets, continue to be the major contributors to people's knowledge about current affairs and that social media hardly contribute at all.

KEYWORDS Current affairs knowledge; Media consumption, News; Time Diary

One of the main functions of news media in democracies is informing the public on day-to-day affairs. Although different media might inform people about different things and the extent to which they inform citizens may vary, there has been a consensus that following the news is helpful, or even necessary to learn about what is going on in the world. This common wisdom, however, needs to be updated because of structural and fundamental changes in today's media environment. Although in the present, so-called high-choice media environment (Prior, 2007; Van Aelst et al., 2017) citizens have more means than ever before at their disposal to retrieve information (Beam, Hutchens, & Hmielowski, 2016; Bode, 2016), they also have multiple opportunities to opt-out (Bennett & Iyengar, 2008). For instance, Prior (2007) demonstrated how in the past citizens who were not very interested in news still encountered political information because the few available media options regularly featured

newscasts and current affairs. Nowadays, increased media choice and availability of entertainment programming allow for easier avoidance of political information among those who are not interested, and for less unintended confrontations with politically and societally relevant issues. Moreover, an increase in media choices does not necessarily result in more diverse and qualitative content, as research found that more outlets and competition often result in less “content-rich” media (Elvestad & Phillips, 2018).

Since then, media environments have changed further with the increasing proliferation of digital, social and mobile media (Vowe & Henn, 2015). According to the Reuters Digital News Report a growing number of citizens across the globe uses social media to follow the news, with Facebook being the most important platform (Newman et al., 2018). However, news via social media is fundamentally different from news via traditional media or online websites. It no longer contains only stories selected and produced by professional news organizations, but also user-generated content (Bode, 2016). On platforms such as Facebook people may also incidentally encounter news while they are online for other purposes. Furthermore, news from social media is more personalized and filtered compared to news from television or newspapers that has to appeal to a broader general audience (Klinger & Svensson, 2015). In sum, given its different nature from other media channels, it is unclear whether following the news via social media has the same positive learning effects as following the news via traditional media. Although social media might be considered a potential new way to improve knowledge, recent studies have a hard time finding positive effects (see further).

In sum, the changes in the “new” media environment require an update of the “old” question: what do people learn from consuming different media types? Are different traditional media still crucial to learn about what is going on in the world, or do new social media also take up this role? In addition, these changes challenge how scholars study news consumption. Questions about measuring news exposure are not new, and in the traditional media landscape people also had problems to correctly report their news consumption (Dutta-Bergman, 2004; Palmgreen, Wenner, & Rayburn, 1980). However, in a high-choice media environment people consume news in a more scattered,

“unpredictable” way (Dimmick, Feaster & Hoplamazian, 2011). People might follow recent events abroad while waiting for the train, or accidentally come across a news story while looking for a friend’s Facebook pictures. To partly overcome the shortcomings of traditional survey research to measure news consumption, we follow the recent trend of using a digital, more fine-grained news measurement approach (see, for instance Ohme, 2020). More concretely, we applied a unique diary study to follow the media use of 460 Flemish (Belgian) citizens during one week in order to study how the consumption of news on different media influences knowledge of events that happened during that week. The diary study yields detailed information about the amount of time people spent on different media outlets, enabling us to investigate to what degree specific news outlets contribute to what audiences learn about specific issues. We expect this to be important, as previous research found that the majority of people nowadays tends to combine a variety of outlets that overlap. Moreover, the era in which people hold on to one newspaper brand or watch one daily news broadcast is over (Trilling & Schoenbach, 2013).

When looking at the consequences of news consumption, most studies focus on the influence of media consumption on political knowledge specifically. Several studies (e.g., Jerit, Barabas, & Bolsen, 2006; Barabas, Jerit, Pollock & Rainey, 2014) demonstrated that at an aggregate level the public scores better on knowledge questions about topics that were covered more extensively in the media. However, unlike previous research, we are less interested in people’s general knowledge of politics or public affairs but rather in their knowledge of recent events in relation to the news media they were exposed to. Barabas et al. (2014) label this *surveillance* political knowledge, as it is about monitoring short-term developments. This type of knowledge needs to be constantly updated and almost necessitates some sort of news consumption. Moreover, our study takes a broader stance and focuses not only on purely political events, but also on other societally relevant issues such as employment and crime.

Media types and learning from the news

The main question in this article is whether different media produce different effects in terms of knowledge about news stories. A large body of research already investigated the influence of media use on knowledge of public affairs. Several studies established positive effects of newspapers (e.g., Druckman, 2005), television (e.g., Graber, 2001) and online news consumption (e.g., Boulianne, 2011; Xenos & Moy, 2007) on knowledge and factual information gain. The main conclusion is that most media matter in one way or another when it comes to increasing people's knowledge (Soroka et al., 2013). However, as mentioned above, this study does not focus on people's general knowledge, but on their knowledge of recent political and societal relevant events. We expect differences based on media profile, as different media vary in terms of providing relevant news content.

For audiovisual media, previous studies indeed found differences between public service and commercial channels in terms of knowledge creation. Public service broadcasters often focus more on political and economic hard news content, while commercial broadcasters tend to focus more on softer news topics. While commercial broadcasters have several incentives to "popularize" their news to attract more viewers, a public service broadcaster has to adhere to specific rules and educate rather than entertain audiences (Brants & van Praag, 2015; Curran, Iyengar, Brink Lund, & Salovaara-Moring, 2009). This is expected to influence what people learn from the news. Indeed, Jenssen (2009) found positive effects of public service news exposure and mainly negative effects for commercial news—although most effects, but not all, were not significant when controlling for background characteristics. Several other studies (e.g., Aarts & Semetko, 2003) also established that a preference for public television news was positively associated with political knowledge. In a more recent study, Soroka et al. (2013) concluded that compared to commercial news, public service broadcasters have a positive influence on knowledge of hard news. Other scholars, however, argue that also popular and commercial media providing more infotainment programs can contribute to factual knowledge on current events. In particular, lower educated and politically less interested citizens could benefit from

media that provide a mixture of hard and soft news coverage (Baum, 2003). Based on these previous studies, we formulate the first two hypotheses:

H1a. Following more news on public service audiovisual media will contribute to the knowledge of current news events.

H1b. Following more news on commercial audiovisual media will contribute to the knowledge of current news events.

When it comes to print media, popular newspapers tend to focus more on soft news, bringing the news with more attention to entertainment and human-interest, while elite newspapers focus more on political and economic news (Reinemann et al., 2012). Although studies on print news conclude that in media systems around the world, news content is becoming softer in all types of newspaper brands (Dahlgren, 2009), the differences between both types of newspapers tend to hold. For instance, examining national UK newspapers over time, McLachlan and Golding (2000) found that in tabloids entertainment news increased, while it fluctuated in elite newspapers. In a more recent longitudinal study, Magin (2019) found only a slight increase of tabloid characteristics in German and Austrian elite newspapers. But do these variations in hard and soft news content also lead to differences in knowledge gain? De Vreese and Boomgaarden (2006) investigated the effects of news media use on political knowledge using panel surveys and concluded that exposure to elite newspapers was positively associated with political knowledge in Denmark, the Netherlands, and the United Kingdom. Focusing on a survey of print and television news use in twenty-seven European democracies, Fraile and Iyengar (2014) found that exposure to hard-news-oriented sources (especially elite newspapers and to a more limited degree public service broadcasting) produced significant information gain, while exposure to soft-news-oriented outlets (e.g., tabloid newspapers) did not. Hence, there seems to be a relationship between the soft or hard news focus of a print medium and the subsequent knowledge about news issues. However, similar to audiovisual media, we expect that

people will also learn from popular newspapers about current affairs, because next to their soft news focus that attracts audiences, these newspapers report on a wide variety of current events, such as factory closings or a meeting of international leaders (Baum, 2003). This might be particularly the case in media environments where there are no real tabloids that push others for a “race to the bottom”, as is the case in Flanders. Furthermore, we do not expect important differences between offline and online versions of newspapers. Studies comparing print media with their online counterparts found that news websites around the world reproduce a very similar kind of news as offline legacy media (Curran et al., 2013; Quandt, 2008).

H2a. Following more news in elite newspapers will contribute to the knowledge of current news events.

H2b. Following more news in popular newspapers will contribute to the knowledge of current news events.

In current discussions about news consumption, one could not ignore the presence of social media. Social media platforms such as Twitter and Facebook play a growing role in informing citizens about the news (Cacciatore et al., 2018; Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2018). This raises the question to what extent following news through social media adds to current affairs knowledge. On the one hand, it might be that people are exposed to more news on social media incidentally, while being on it for other—social—activities (Fletcher & Nielsen, 2018). This incidental exposure would correlate with exposure to more different news sources compared to people who only consume traditional media. On the other hand, several studies found that social media do not lead to an increase of knowledge on current affairs. Using panel surveys in Sweden, Shehata and Strömbäck (2018) concluded that using social media to follow news about politics and current affairs does not compensate for not using traditional news media in terms of learning on a diverse set of political news issues. Lee and Xenos (2019) even found that general social media use has a moderately negative effect

on political knowledge. Boukes (2019) also found this negative relation between Facebook use and knowledge about current (economic) events in the Netherlands, but his study showed traces of a positive relationship with Twitter use.

Moreover, on social media there is a tendency towards soft news with a higher entertainment value, which stands in contrast with more traditional media where citizens usually encounter a wider range of substantial news stories (Bakshy, Messing, & Adamic, 2015; Horan, 2013; Utz, 2009). Since we have conflicting expectations and there is fairly little research on social media and learning about political and societal events we formulate a research question.

RQ1. Does following news on social media, specifically Facebook and Twitter, contribute to the knowledge of current news events?

Method

Flemish case

This research was conducted in the small news media market of Flanders, the Dutch-speaking region of Belgium. Flanders is characterized by its relatively advantageous situation for news quality. It has a strong public service broadcaster that competes for news with only one commercial broadcaster that is similar in content and focus. During the past decades both broadcasters have increased their supply of news and current affairs programs, making it, similar to Scandinavian countries, a good case for capturing the attention of politically less interested viewers (Esser et al., 2012). Even today, the public broadcaster has kept its central place in the information environment. In a similar way, print media maintained a relatively strong position, both online and offline (Newman, et al., 2018). Furthermore, compared to some other countries, Flanders does not really have typical “tabloid” media. Although the popular media have tabloid characteristics (e.g. more focus on human interest and soft news, bolder titles, etc.), they also devote ample attention to more hard news issues. Nevertheless, there are some concerns about media pluralism and ensuring a diverse mix of quality

journalism, as Flanders is also a heavily concentrated news media market. Since 2018, traditional media products are owned by only five groups (including the public service broadcaster), compared to nine some years ago (Flemish Media Regulator, VRM).

Data gathering

Data were collected using a combination of a time-diary and surveys. Data collection ran from April 4 to May 13, 2018. We conducted a pre-survey (N = 1006), time-diary (N = 460) and a post-survey (N = 572) with people between the ages of 25 and 45 living in Flanders. There are fewer respondents in the time-diary compared to the post-survey due to the extensive quality control of the diaries. Only participants who successfully completed all phases of the research (N = 460) were included for further analysis. The age limit of participants was decided upon to homogenize the sample as the final number of valid diaries was anticipated to be too small to make inferences about subgroups. As time-diaries are sensitive to the available time and lifestyle of participants, it was decided not to include for example students and retired people. Additionally, digital literacy may influence online-news use and our sample is expected to have similar diverse media consumption patterns.

Invitation letters were sent to respondents based on a random sample of 10,000 Flemings using a database provided by the national postal service *Bpost*. After receiving the invitation letter, respondents could login to an online survey and diary tool called MOTUS and fill in the pre-survey. All respondents kept their activities and news consumption in their personal time-diary during the same week. After this week, the post-survey was available to complete. Reminder letters and e-mails were sent throughout the period of the fieldwork to motivate people to complete the study.

Pre-survey

In the pre-survey, people were questioned on a number of socio-demographic, general knowledge and interest variables. Respondent's age (in years), gender (0 = male, 1 = female) and political orientation (*"In politics, the terms 'Left' and 'Right' are often used. Could you describe your own views on a scale*

from 0 to 10, in which 0 indicates 'Left', 5 'Center' and 10 'Right') were surveyed. Level of education (1= lower educated to 5 = higher educated), political interest ("Indicate to what extent you are interested in news about national, international & European politics", going from 1 = not at all interested to 5 = very interested) and general political knowledge (Based on four multiple-choice questions on government members and political parties¹) were also enquired.

Diary study

After completing the pre-survey, respondents were asked to keep their diary up to date in the week from 23 to 29 April 2018. They could fill in the time diary online or through a mobile app. They got instructions to indicate in the diary at what time they performed which activities and whether or not they read, viewed or listened to news on each of the different media outlets during those activities. Based on this diary study, for every type of medium, the time (in seconds) spent consuming news on the media platforms was calculated (see **Table 1**). This way, we get a precise insight in the exact amount of time participants spent on the different news media.

[Insert Table 1 around here]

Post-survey

At the end of the diary week (Monday till Sunday), respondents were invited to participate in a post-survey containing knowledge questions on specific events that were featured in the news during that week. Based on these knowledge questions, we created a knowledge scale. As there was quite some variation between the questions regarding the percentage of correct responses, we used a Mokken scale (Mokken, 1997) to generate our knowledge variable. The Mokken scale takes into account differences in difficulty between the diverse questions. We coded both false answers and "don't knows" as incorrect. Two general news knowledge questions were left out of the analysis, as they did not pair with the other items and did not receive a reliable Loewinger H coefficient ($H < 0.3$). The

remaining questions scored well on the scale, passing the $H > 0.3$ criteria. Hence, we constructed a new knowledge scale, based on the number of correct answers of a respondent. In **Table 2**, the different questions included in our current affairs knowledge scale and the share of correct answers are displayed. The five items are diverse, ranging from international politics to a strike, but all deal with societal relevant issues, and all received (extensive) coverage during the week under study.

[Insert Table 2 around here]

Participants

The 460 participants were on average 36 years old ($M = 36.5$, $SD = 6.4$) and 57% were female. The average political orientation was 5.0 ($SD = 1.2$) on the 11-point scale. 68% of the respondents had followed higher (post-secondary) education. The average political knowledge score was 2.45 out of 4 and political interest was 2.88 out of 4. Remuneration was provided for all respondents who completed the study.

Results

In **Table 3**, the mean time in minutes the participants indicated to have spent on the different media to consume news is shown. On average, public service radio is by far the most popular medium, probably because they have regular (short) news updates, and people often listen to the radio while doing other things. Online popular newspapers and public service television news are also consumed frequently. These numbers are in accordance with the audience figures of the different media outlets in Flanders (CIM, 2019). Popular newspapers are more prominent than their elite counterparts, both online and offline. News on the public service broadcaster is consumed more often than on the commercial broadcaster. However, there is quite some variation in media use, as can be seen in the standard deviations. For instance, some people did not listen to public service radio in the week under study (28%), while others spent more than ten hours listening to it. The same goes for Facebook as a

news source, some used it more than ten hours per week, while about 60% of the participants never used it to consume news. Twitter was hardly ever used by participants in our study, so it is left out from further analyses. This finding is in line with the low percentage (4%) of Twitter use as a news source among the general public in Belgium (Newman et al., 2018: 67).

[Insert Table 3 around here]

When people follow the news, they hardly ever rely on a single medium. 80% of our participants used at least two media types to consume news. Therefore, we check whether the use of different types of media is related. **Table 4** displays the pairwise correlations between the various media. Indeed, it seems that the consumption of specific media is related to the consumption of other media and that consuming some types of media is related to spending significantly less time consuming news on other types, although in general all correlation coefficients are rather low. Spending time on offline elite newspapers is related to spending time on their online counterparts. For popular print media, we cannot find this relationship. This probably means that people consume a lot of the free content on the online news websites of popular newspapers, without having a subscription to the printed papers. Consuming public service television and radio news is related, and a similar relationship is found for their commercial counterparts. People who spend more time on the commercial broadcaster seem to spend less time consuming news on elite print media (online and offline) and the public service broadcaster. Facebook has no significant relationship with any other news medium and even correlates negatively with all of them.

[Insert Table 4 around here]

Knowledge of current affairs news

But how does the consumption of these different media types contribute to knowledge of current affairs? In **Table 5**, the influence of the use of different media types on the current affairs knowledge questions can be found. Model I shows that—with the exception of commercial radio—the more time (in seconds) participants spent on all types of traditional media (both online and offline), the better their knowledge of the news questions. However, in Model III it can be seen that this changes when political knowledge and political interest are added to the analysis. Not surprisingly, general political knowledge is the best predictor of correctly answering the current affairs questions. The influence of radio news and offline elite newspapers disappears when the sociodemographic variables and particularly political knowledge are added to the model. The influence of elite media is roughly halved by the addition of these variables. The other results are mostly robust when controlling for sociodemographic characteristics and political knowledge and interest. Interesting though, is that popular print media (online and offline) and the commercial broadcaster still have a significant influence. Subsequently, not only does consuming news on elite media and the public service broadcaster contribute to the knowledge of current affairs news topics, but also the consumption of popular print media and news on the commercial broadcaster does. Both the public service and commercial broadcaster contribute to the knowledge of current affairs news: Hypothesis 1a and 1b are thus accepted. For print news, we find mixed results for hypothesis 2a: the influence of offline elite newspapers disappears when including the socio-demographic variables, and specifically political knowledge, in the model. Online elite newspapers do have an influence, in line with the hypothesis. Both offline and online popular newspapers positively contributed to the knowledge of current affairs, corroborating hypothesis 2b. These findings are in accordance with the results of Hahn, Iyengar, Van Aelst, and Curran (2011) who found that specifically mainstream media bring a mix of hard and soft news, resulting in an audience that becomes informed on all topics in proportion to their visibility in the news stream. Social media website Facebook does not influence knowledge of current news events. It is even the only medium having a negative B-value, meaning that the more time people spend consuming news on Facebook, the less they know about current affairs. Although not significant,

this finding corresponds to other recent studies that point to no or even negative effects of Facebook use on political or current affairs knowledge.

[Insert Table 5 around here]

Discussion & Conclusion

This study was one of the first to investigate the influence of news consumption on knowledge about current political and societal relevant events using a unique diary study. Thanks to this method, we were able to get a very detailed understanding of participants' media use and examine how different media contribute to knowledge of current affairs. Moreover, instead of looking at general (political) knowledge questions, we studied what participants picked up from one specific week of news.

Radio, popular newspapers and the public service broadcaster were among the most consumed news media. At least among the age group under study (25-45), these traditional media were used to consume news more frequently compared to Facebook and especially Twitter, which was hardly ever used. Of main interest in this article was the influence of media consumption on knowledge of current events. Our expectation was that particularly the public service broadcaster and elite (online and offline) print media would contribute. Indeed, we found them to have an influence. However, we also found that people who consumed more news on commercial and popular media had higher levels of knowledge of the news stories, even when controlling for political interest and general political knowledge. Consequently, people consuming news on popular media are certainly not deprived of information of harder current affairs news topics, but seem to be informed on a broad level of topics. The traditional "knowledge gap" that would exist based on different news consumption patterns (e.g. Prior, 2005) does not seem to exist here. What is more, after controlling for political knowledge and interest, commercial and popular media are even of relatively greater importance. A possible explanation for these findings could be the "public service news ecology" that exists in Flanders. Several studies established that the presence of a strong public service broadcaster increases the

overall quality of all news outlets in a media system and creates a better informed citizenry (Cushion, 2012; Aalberg & Curran, 2012). This implies that we cannot generalize these findings to all countries, but do argue they apply to other (small) North-Western European democracies, such as most Scandinavian countries, that maintained a trusted and widely used public broadcaster in combination with a popular press that keeps mixing relevant societal coverage with soft news stories.

While almost all of the traditional news platforms contributed to current affairs knowledge, following news on social media platform Facebook did not. It thus seems that an incidental exposure to news coming from the social media platform does not occur here as much as expected or hoped for. This leads to the intriguing question why this is actually the case. Since we used a detailed diary method, we can assume it is unlikely that people report being on Facebook to follow news while they are actually doing something else. It might be that people on Facebook mostly consume soft news stories (e.g., Bakshy, Messing, & Adamic, 2015) or simply do not receive enough hard news stories (Boukes, 2019). Other possible explanations are that social media “overload” people with a stream of messages that hinders learning (van Erkel & Van Aelst, 2020) or because news streams on social media are often highly personalized and therefore do not contribute to current affairs learning on a broad set of topics (Shehata & Strömbäck, 2018). This study, using an alternative method, confirms the growing amount of studies that are rather pessimistic about social media, and Facebook in particular, as platforms where people learn about what is happening in society.

Even though a diary study is a more reliable and complete measure of media use compared to self-reporting in surveys, it is still prone to some of the limitations of self-reporting. It might be that people forgot to fill in the diary at some moments or were not aware of their own (news consumption) behavior. Probably we mostly registered more active forms of news use. To tackle this, several mechanisms were built in to encourage people to fill in the diary, such as several reminders throughout the week. Moreover, as with all web-based studies, it is impossible to control whether participants answered the post-survey individually. Another disadvantage of the diary approach might be that only people who are really motivated to participate in the research complete the study, as it is a time-

consuming activity. This might explain the large number of highly educated and politically interested participants.

People nowadays live in a high-choice media environment, where the possibilities to consume news are almost limitless. People have more opportunities to compose their media diet based on their own preferences (Tewksbury, Hals, & Bibart, 2008; Trilling & Schoenbach, 2015). It is perfectly possible for people to read a popular newspaper, watch public service news and also encounter news on their Facebook Timeline. The fact that people learn little about relevant societal events from Facebook does not seem too problematic as the large majority of our respondents relied on traditional print and audiovisual media, or their online versions. These media still contribute the most to people's current affairs knowledge. However, this finding might be potentially more problematic for younger citizens who rely more exclusively on social media or alternative media for their news diet. In all, we hope that our fine-grained measurement of news consumption adds to the understanding of how different media contribute to the knowledge people have of day-to-day affairs.

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NOTE

1. *The questions were: "Which party does Kris Peeters belong to?"; "Which political party has most seats in the Flemish Parliament?"; "What is the name of the current president of the Chamber of Representatives of the Federal Parliament of Belgium?"; "Which of the following political functions does Marie-Christine Marghem have?"*

Table 1. Operationalization of time variables

Time variables	Measurement
Offline popular newspapers	<i>Total time in seconds spent on popular newspapers (Het Nieuwsblad, HLN, Het Belang van Limburg, Gazet van Antwerpen)</i>
Offline elite newspapers	<i>Total time in seconds spent on elite newspapers (De Morgen, De Standaard, De Tijd)</i>
Online popular newspapers	<i>Total time in seconds spent on popular online newspapers (Nieuwsblad.be, HLN.be, HBvL.be, GvA.be)</i>
Online elite newspapers	<i>Total time in seconds spent on online elite newspapers (DeMorgen.be, DeStandaard.be, DeTijd.be)</i>
Commercial broadcaster	<i>Total time in seconds spent on VTM News</i>
Public service broadcaster	<i>Total time in seconds spent on Eén Journaal</i>
Commercial radio	<i>Total time in seconds spent on news on commercial radio (Nostalgie, Joe, Qmusic)</i>
Public service radio	<i>Total time in seconds spent on news on public service radio (Radio 1, Radio 2, Klara, MNM, StuBru)</i>
Facebook	<i>Total time in seconds spent on news on Facebook</i>

Table 2. Knowledge questions

	% correct answers
With whom did South Korean leader Moon Jae-in have a historic meeting this week? [<i>Kim Jong-un, North-Korea</i>]	87.5
What was the motive of the man in Toronto (Canada) for driving a van into pedestrians [<i>Sexual frustration (aversion towards women)</i>]	41.6
Who went to New York this week to advocate for Belgium as a member of the UN Security Council? [<i>King Filip</i>]	47.5
At which supermarket chain was there a spontaneous strike this week? [<i>Lidl</i>]	96.8
The Brabant Killers (Bende van Nijvel) were in the news last week. What was the nickname of Chris B., who is suspected of being one of the gang members? [<i>De Reus</i>]	89.4

Table 3. Mean time (in minutes) spent consuming news on the different media outlets during the diary week

	Mean Time (<i>SD</i>)	% people that consume the medium at least once
Offline popular newspaper	19.2 (48.6)	26.3%
Offline elite newspaper	11.4 (39.6)	13.3%
Online popular newspaper	40.7 (74.3)	46.7%
Online elite newspaper	13.4 (41.6)	18.7%
Commercial broadcaster	28.1 (63.4)	31.1%
Public service broadcaster	40.2 (48.8)	52.4%
Commercial radio	18.1 (45.2)	30.7%
Public service radio	76.4 (110.5)	72.2%
Facebook	27.3 (63.5)	40.4%
Twitter	1.18 (13.80)	2.17%

Table 4. Pairwise correlations between different time variables

	Time offline popular	Time offline elite	Time Online popular	Time Online elite	Time commercial broadcaster	Time public service broadcaster	Time commercial radio	Time public service radio	Time Facebook
Time offline popular	1								
Time offline elite	-0.065	1							
Time Online popular	-0.022	-0.071	1						
Time Online elite	-0.088	0.214**	-0.061	1					
Time commercial broadcaster	0.081	-0.105*	0.049	-0.095*	1				
Time public service broadcaster	0.041	-0.038	-0.03	-0.129**	-0.099*	1			
Time commercial radio	-0.014	-0.079	0.011	-0.099*	0.144**	0.027	1		
Time public service radio	0.017	0.085	-0.045	0.031	-0.106*	0.094*	-0.059	1	
Time Facebook	-0.036	-0.005	-0.034	-0.039	-0.016	-0.015	-0.001	-0.061	1

** $p < 0.01$; * $p < 0.05$

Table 5. OLS regression with current affairs news knowledge as dependent variable

	Model I		Model II		Model III	
	B (SE)	β	B(SE)	β	B (SE)	β
Time offline popular	0.008 (0.00)**	0.114	0.007 (0.00)*	0.096	0.007 (0.00)*	0.102
Time offline elite	0.012 (0.00)***	0.143	0.010 (0.00)*	0.120	0.005 (0.00)	0.065
Time Online popular	0.007 (0.00)***	0.143	0.004 (0.00)*	0.093	0.004 (0.00)*	0.088
Time Online elite	0.017 (0.00)***	0.213	0.015 (0.00)***	0.200	0.010 (0.00)*	0.119
Time commercial broadcaster	0.013 (0.00)***	0.233	0.011 (0.00)***	0.213	0.010 (0.00)***	0.179
Time public service broadcaster	0.014 (0.00)***	0.241	0.013 (0.00)***	0.209	0.008 (0.00)**	0.130
Time commercial radio	0.005 (0.00)	0.065	0.004 (0.00)	0.057	0.005 (0.00)	0.070
Time public service radio	0.004 (0.00)**	0.132	0.004 (0.00)*	0.120	0.002 (0.00)	0.068
Time Facebook	-0.003 (0.00)	-0.047	-0.003 (0.00)	-0.054	-0.002 (0.00)	-0.049
Level of education			0.004 (0.01)	0.021	-0.002 (0.01)	-0.026
Gender (1 = female)			-0.046 (0.02)*	-0.112	-0.002 (0.02)	-0.015
Age (in years)			0.001 (0.00)	0.039	0.001 (0.00)	0.033
Political orientation (right)			0.003 (0.01)	0.027	0.003 (0.01)	0.058
Political knowledge (high)					0.040 (0.010)***	0.211
Political interest (high)					0.037 (0.012)**	0.170
	R ² = 0.196		R ² = 0.207		R ² = 0.278	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$